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ABSTRACT

In any international discussion about the future of education, a first requirement is to reach consensus on the general principles and objectives that should guide future educational policy thinking and practice. The starting point must be recognition of the universality of human needs and aspirations to which education everywhere should be directed, accompanied by equal recognition of the main contextual factors and forces that influence these directions and their applicability, according to the particularities of different regional and national situations. The purpose of this paper is to make a contribution to such a discussion. Against the background of broader social, economic, and cultural trends and needs it endeavors to: (1) identify the main objectives and problems that will confront future education policies; (2) outline strategic approaches to the redefinition of such policies; and (3) suggest specific areas and issues in educational policy thinking and in the organization and practice of education that can contribute to the realization of these policies. In doing this, the paper draws heavily on the experience of the advanced industrialized countries. While this experience may not be seen as immediately relevant to other, less developed regions in the world, the experiences of one group of countries can provide both positive and negative lessons from which others can benefit when the concern is with long term policy rather than the operational dimensions of the problems discussed. (DK)

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LEARNING FOR THE TWENTY-FIRST CENTURY

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A. Introduction: Scope and Purpose

1. In any international discussion about the future of education, a first requirement is to reach consensus on the general principles, objectives and desiderata which should guide future educational policy thinking and practice. The starting point must be recognition of the universality of human needs and aspirations to which education everywhere should be directed, accompanied by equal recognition of the main contextual factors and forces which influence these directions and their applicability, according to the particularities of different regional and national situations.

2. The purpose of the present paper is to make a contribution to such a discussion. Against the background of broader social, economic and cultural trends and needs, it endeavours to:

(a) identify the main objectives and problems that will confront future education policies;

(b) outline strategic approaches to the redefinition of such policies;

(c) suggest specific areas and issues in educational policy thinking and in the organization and practice of education which can contribute to the realization of these policies.

3. In doing this, the paper draws heavily on the experience of the advanced industrialized countries. It is fully recognized that this experience may not be seen as immediately relevant to other, less developed regions in the world. Nonetheless, the concern here is with the long-term, and there is no doubt that the distance already covered by one group of countries can provide lessons, both positive and negative, from which others can benefit. Moreover, it can be argued that the differences are more a question of setting of priorities and of application - to be taken up in the second stage of the work - rather than of the nature of the problématique as such. This is one of the reasons for which this paper concentrates on the policy rather than the operational dimensions of the problems discussed.

B. The Politicization of Education

4. All over the world, there is a resurgence of interest in education. Depending on who its spokesmen are, it is variably seen as the gateway to future economic prosperity, the chosen instrument for combating unemployment, the driving force behind scientific and technological advance, the sine qua non for the cultural vitality of increasingly leisure-intensive societies, the spearhead of social progress and equality, the safeguard of democratic values, the passport to individual success.

5. This is fully in line with the multiplicity of objectives - cultural, social and economic, with individual development as their common denominator, - traditionally served by education. What is new is the persistent chorus of demand, coming from many quarters of society, for educational reform. In most countries, by far the most urgent pressure for change currently emanates from people seeking to enhance education's contribution to employment and the economy. Again, there is nothing new in these arguments. But they are given new, and often dominant, weight by the economic imperative and the force and urgency with which educational reform is politically advocated to respond to this imperative. Education has thus come to the fore of the economic and political debate in many countries, though often viewed more as an instrument of other policies rather than as a policy sector in its own right. It is a sign of the times that charismatic spokesmen for education per se are in short supply.

6. This politicization of education is amplified in many countries by reduction in government funding and by pressures for accountability in the way the resources made available to education are used. Demands for accountability are not limited to governments concerning the effective use of resources; they also emanate from parents about the quality of their children's education, from employers about the quality of the work force and from other pressure groups with their own agendas. This, in turn, has led to a weakening of the social consensus on educational objectives, as different groups in society strive to see their viewpoint prevail - eventually through the political process - in what concerns not only the allocation of resources to different sectors of education but also the structure of educational systems, the organization of schools and even the content of curricula and teaching methods, matters of which educationists traditionally had the monopoly.

7. We are thus witnessing a twin-facetted politicization movement in education. On the one hand, economic stringency has led to a sharpening of the conflict about priorities in educational objectives, in contrast to earlier, more affluent times when all the objectives of education could be pursued more or less simultaneously. On the other, and partly in consequence of the above, politics has penetrated the very core of the educational process, giving rise to a different kind of conflict between educationists, particularly teachers, who regard themselves as the professional guardians of educational standards, and a new breed of educational politicians eager to impose their own views and values of what education is about. Both types of conflict are best illustrated by the reaction against the egalitarian policies and liberal pedagogies of the sixties and seventies which set in with the rise of radical neo-conservatism on both sides of the Atlantic during the eighties: and by the turmoil which has been created as a result of the application to education of the tenets of a free market philosophy based on choice and competition.

8. In all this, education is in many respects merely paying the price of its own success in coming to establish itself, through its massive post-war expansion, as an integral part of the fabric of society. This was not simply a question of the vast increase in school and university populations, itself a unique historical phenomenon, whose social and political consequences have yet to be fully appreciated. Primary and lower secondary education, covering compulsory schooling, are now universal in OECD countries. Beyond that stage, at upper secondary level, between 80 and 95 percent of 16-19 year olds are enrolled in some form of education and training. Depending on the country, post-secondary participation has reached between 30 and 50 percent of the 19-24 age-group, covering both university and, increasingly so, non-university tertiary education.

9. It was also a broadening of educational provision, bringing in new groups beyond the traditional school populations and encompassing the rapidly growing range of learning activities, including the explosion of vocational training for both adults and youngsters, that take place outside formal educational institutions and under auspices other than those of the traditional governmental Departments or Ministries of Education. This, in turn, has resulted in a broadening of the policy and decision-making structures of education, bringing in new interest groups beyond the traditional educational establishment. This increased degree of pluralism in educational decision-making, with Ministries of Education now controlling only part of the widespread educational activity that goes on in modern societies, puts into sharper relief the problem of ensuring coherence in educational provision. It raises new and difficult questions of coordination, particularly between youth and adult education, between formal and non-formal education, between the activities of Ministries of Education and those of other governmental departments and agencies and between the public and private sectors more generally, recognizing in particular the increased role which enterprises play in the provision of training.

C. A New Context for Education

10. The upshot of the changes outlined above is that the development of education, in its widest connotations, is no longer propelled, as in the past, by its own endogenous dynamics, but has become more sensitive to external pressures. This trend will be further amplified over the next decades, under the impact of a number of major developments which are changing the cultural, social, economic and political landscape of different regions and countries in the world, and to which education will be increasingly called upon to contribute or respond. The most significant factors behind these developments, as they collectively impinge on education, are already clearly identifiable and can be briefly stated. Together they provide a new context for education which those responsible for charting its future development cannot afford to ignore.

11. There is, firstly, the ineluctability of the growth of knowledge and information, which are the very stuff of education and learning and on which the cultural and scientific advancement of societies rests. Increasingly they permeate all aspects of social and economic life and are becoming essential to the economic vitality and competitiveness of individual countries; they are seen as such particularly by the advanced industrialized countries. The information glut in modern, media-dominated societies poses new problems for the school, no longer either the main generator or the main transmitter of information. Schools will have to learn how to exploit the pedagogical value of the information around them and how to develop in pupils the capacity for discernment among the mass of information sources that hit them every day.

12. Inevitably, the growth of knowledge leads to ever rising levels of specialization as a necessary condition for scientific progress and this is the basis on which the "knowledge-production industry" is organized within higher education systems. But for education more broadly a two-fold problem is thereby raised: how to ensure that advances in knowledge are continuously incorporated in school curricula; and how knowledge syntheses can be produced that bring together the findings from various disciplinary specialisms into forms which are pedagogically viable for pupils and easily communicable to the wider public. Existing faculty structures and career and reward systems in higher education do not provide adequate incentives for this in that they do not recognize or support the academic respectability of synthesizers of knowledge. This is all the more serious because of the inter-disciplinary nature of many of the problems for which society seeks understanding and solutions. Inter-disciplinarity, to which the academic community pays lip service, remains far from being the norm within university course structures.

13. Secondly, technological change will continue at an accelerated pace. The pace of this change is unequally shared among different regions of the world, but everywhere it increasingly affects all aspects of life. In particular, it propels economic restructuring, often with painful social consequences which are compounded by concomitant changes in labour markets, jobs and skill requirements, especially under the impact of the ubiquitous information technologies and of the preponderant role which the service sector is now coming to occupy in the economy. In all this, education plays a leading role: it provides and updates the skills and competence of individual workers which is essential for a flexible labour force capable of responding to the continuous change resulting from technological progress. Increasingly this role will have to be exercised in conjunction with the work-place and new links will have to be forged between formal schooling and enterprise-based training and learning, essential to combating the new forms of "functional illiteracy" which are generated by technological change.

14. Over the foreseeable future, the "human resources" role of education will continue to be exercised within the constraining context of persisting high levels of unemployment, of which the heaviest burden falls on young people. In the European Union area alone it

is estimated that, if present trends continue, by the year 2000 there will be 30 million unemployed. Of these, 20 million will be young people, i.e. double the rate of that of total unemployment and increasingly affecting the whole of the 18-24 age group, including higher education graduates. This growing marginalization of young people has enormous social and economic consequences and poses serious threats to the cohesion and stability of democratic societies.

15. The consequences for education are equally significant. The prospect of unemployment will affect young people's attitude to the value of further study and will influence the choice of studies of those who are in education towards more vocationally-oriented courses. Governments will increasingly use education and training as a main instrument of labour market policies and for providing young people with alternatives to unemployment - in essence defining young people out of the labour market and incidentally alleviating unemployment statistics. No doubt, there is much that education can do in better preparing young people for employment and in the retraining of the labour force; but the temptation must be resisted to consider education as the panacea to unemployment. It can certainly improve the chances of individuals in the hard competition for the jobs available; but it cannot create jobs, other than marginally, nor can it be expected to re-orient its objectives to train people for a life of unemployment.

16. Thirdly, demographic changes are everywhere leading to a redistribution of age-groups. In the less advanced regions of the world, with continuing high birth rates, school age populations will continue to grow and will call for priority in basic educational provision. For the more advanced countries, lower birth rates which had been the general rule until recently, will result in diminishing youth cohorts, which eventually, in the early decades of the twenty-first century, will be reflected in a drop in the size of the "working age group". At the same time, there will be an increase of those in retirement, both relatively and absolutely, thus altering the balance between the active and non-active parts of the population. Apart from the consequences that this will have on the financing of old-age pension schemes and health care programmes, particular types of labour and skill shortages will appear in fairly dramatic terms, paradoxical as this may seem in view of the large numbers of unemployed youth mentioned above. These can only be met through intensive retraining of the existing labour force and/or through the recruitment of migrant workers from countries with surplus youth populations. But such migrant workers cannot be of the unskilled manual kind that was the case in earlier decades. The need will be for young people equipped with the skills which will enable them to cope with the job requirements of technology-based advanced economies. This will place a premium on reciprocal arrangements between sending and receiving countries to ensure adequate levels of education and training for the young people in question.

17. The vagaries of demographic change are, of course, well known, as are the difficulties which they raise for the planning of provision in the light of fluctuating numbers at different levels of the educational system. This has been a main headache for educational planners in the post-war period and will continue to be so in the future. A good illustration of these difficulties is provided by the growing evidence in many OECD countries that birth rates, after years of decline, are rising again. This will necessitate a new redeployment of resources back to compulsory schooling, with all that this implies for the renewal of the building stock and teaching force, both severely cut during the period of decline. Already, teacher shortages, in some cases quite severe, are evident in a number of countries, all the more serious because of the overall ageing of teaching staff and the drastic reductions which had been made in the availability of places in teacher training institutions.

18. Fourthly, countries are becoming increasingly interdependent. Such interdependence is economic and cultural as well as political, exemplarily manifested in the

move towards European integration. Recent events, in Europe and elsewhere, marking the end of ideological conflict with the demise of communism, have further underlined the growing momentum of this interdependence in its manifold facets. They have shown how much the safety and prosperity of any one region, and indeed the preservation of peace in the world, depend on similar circumstances prevailing in other regions. They are bringing humanity closer together and this has diverse consequences not only for the mobility of goods and people across countries but also, and in the long-term more significantly, for greater international understanding and exchange - an opening up of frontiers but also of minds. Major new challenges are thus posed for education as a mainspring for intercultural understanding and progress. And this applies as much to inter- as to intra-country situations, seeing the growing multicultural composition of the society of many countries across the world.

19. Fifthly, new social concerns are emerging to the solution of which education will be expected to play an active role. Concern for the environment is probably the one which is most universally felt, and one in which education is already actively involved in sensitizing children and young people to environmental problems and to approaches for their solution. Health and drugs provide similar examples. But there are also growing concerns for the reinforcement of civic and democratic values that are shared within the group and are compatible with international norms, assuredly the uppermost prerequisite for the pursuit of equity and the preservation of harmony and peace in the world. In market-driven competitive and consumerist societies, education can play a crucial role in sustaining social cohesion. There are also growing concerns about how to cope with the information glut in modern societies and the pervasiveness of the media, as already mentioned. While education must be responsive to all of these concerns, there is a real danger that too much may be demanded of it. It can contribute but it would be unrealistic and counter productive to overload it with tasks which are beyond its remit.

20. Finally, account has to be taken of changes in attitudes to the role of public policy and of the way in which public services are administered and financed. This is not unrelated to issues arising from the growing politicization of education discussed earlier; but it also encompasses trends and problems which are common to all systems independently of their political particularities. A clear example is the strong trend towards decentralization and greater devolution of responsibility to local and institutional levels. It is at these levels that problems can best be identified and solutions applied. A further example relates to the demands on the quality of public services, the effectiveness of their delivery and greater accountability for their outcomes. New questions are in turn raised about levels and methods of the financing of public services and a rethinking of the roles and contributions of the state, regional and local authorities, employer and employee organizations and individuals. To the extent that education in the vast majority of countries remains a public service largely publicly financed, its future development cannot escape the effect of these trends and constraints.

21. The cumulative impact which the trends and changes outlined above will have on education will be considerable. But before dealing with their implications, a word of warning would be in order in concluding this contextual analysis. Everyone recognizes that the effects of education, in the variety of purposes it serves, are cumulative and long-term rather than immediate. It cannot, therefore, be planned, organized or directed merely in response to the transient demands of economic cycles or fashionable social philosophies. In the turbulent world of to-day, with fragile family and other social institutions, this consideration is all the more important: education becomes the main vehicle for maintaining and transmitting the basic values on which the cohesion of future societies depends. A certain abstraction from its immediate environment is thus essential for education if it is to fulfil this role.

22. This, of course, does not mean that education can be immune to the impact of conjuncturally-driven decisions; and it is important that educational systems should be equipped with greater flexibility and capacity to respond to new needs - which, admittedly, has not been their principal characteristic so far. But because change in education has a long lead time, it is vital that the short-term effects of any policy decision should be carefully weighed against its longer-term consequences, both intended and unintended, so as to avoid any distortion to the fundamental purposes which education serves in society. This brings into play a new role for educational planning and its relationship to decision-making, binding the two together as inseparable aspects of educational policy-making. It is a fact that in the recent history of change policies in education, mostly politically or economically-driven, this underpinning role of educational planning has tended to be ignored.

23. With this warning in mind, we can now proceed to identify some of the main parameters which can help define the directions which educational policies could take if they are to meet the challenges of the twenty-first century.

D. An Educational Policy Agenda for the Twenty-First Century

24. Traditionally, educational policies are perceived in terms of discrete levels, branches or sectors around which educational systems are organized - pre-primary, compulsory, secondary, technical and vocational, adult and higher education, teacher training, etc. This administrative breakdown of educational provision will, no doubt, remain useful and necessary for planning and operational purposes and as a means by which educational systems perform their "sorting out" function. But it does carry the risk of encouraging an over-compartmentalized, sectorial approach to educational policy planning at the expense of an overall vision of educational purposes and objectives within which the contribution of each level or sector can then be defined and priorities established, according to national circumstances. Such a broader vision becomes all the more necessary in view of the widespread scope of learning activity in society and the links which now exist between education and other sectors of policy. It is this broader approach, based on central policy themes and objectives to guide future educational policies which has been adopted for the purposes of the present discussion. Their implications for specific levels and sectors of education, seen in the continuum of the educational process, are briefly indicated but will need to be spelled out in detail at a later stage.

25. Five such themes have been identified:

i) Expanding Learning Opportunities: The Need for New Strategies
ii) Ensuring Educational Quality and Relevance
iii) The Quest for Equality
iv) New International Perspectives and Dimensions
v) Meeting the Costs

Each of these themes is discussed below, with a concluding comment on the need to strive towards a "New Humanism" in education.

i) Expanding Learning Opportunities: The Need for New Strategies

26. It is clear from the earlier discussion that countries all over the world are inevitably moving, though at different paces according to stage of development, towards becoming "learning societies". As knowledge and information increasingly permeate every aspect of human activity, learning becomes pivotal to future progress. This is true for the economy, with its fundamental reliance on the "human factor" in terms of knowledge and skills but also flexibility and entrepreneurship, as it is of the functioning of democratic

societies, calling for well-informed and discerning citizenries. It is also true for the pursuit of leisure and cultural activities for which more time is now available, especially for the growing number of older citizens, and for ensuring the very quality of life and the environment. Learning thus becomes an essential feature over the whole life-span of the individual; in terms of better adaptation to work but also as an activity in its own right. The conclusion cannot be avoided that more than ever new concepts for implementing policies for life-long learning will need to be developed.

27. Enunciating the need for such policies is easy; it has been done before. Implementing them is a different matter, and one which has nowhere so far been taken seriously. The starting point must be recognition that the changes in the direction of strategies for life-long learning, in which quantitative expansion will have to go hand-in-hand with qualitative improvements at all levels, cannot be achieved by merely replicating existing programmes and structures, of providing more of the same. The setting of quantitative targets, according to national priorities and resource availability, will of course continue to be essential. But such targets will need to be seen in the light of a reconsideration of programmes and objectives throughout the educational spectrum, from pre-primary to higher and adult education and training as well as education for retired people and the raising of overall literacy levels in the population, including the eradication of illiteracy in its traditional sense and in it new forms generated by scientific and technological change. It will also involve a re-examination of the relative roles of formal and non-formal provision, including the use of the workplace as a learning environment.

28. The role of initial education and training is crucial to a good start to lifelong learning. All agree that such education should be of a general character, covering both cognitive and affective aspects of child development. It should secure in all youngsters the foundation of solid knowledge and skills, combined with the appetite and ability to learn afresh - learning to learn - without which no further educational progress can take place. This is as much a question of teaching programmes tailored to the needs of all pupils, including those who learn better by "doing", as it is of the ethos of schooling itself in developing among pupils qualities of application, high expectations and co-operative learning. Effective schooling should build on the influential pre-school years and operate a close partnership with parents and the local community. It should give all pupils a better sense of the world around them, including the world of work, while recognizing that it is not the responsibility of this stage of education to prepare people for specific jobs.

29. Equally important changes would be required in order to meet the multiple learning needs of all young people beyond compulsory schooling. A wide and flexible system of education and training opportunities should be available, involving both the public and private sectors, often combining the two, to facilitate access by young people to further education and/or work and help them avoid the unemployment trap. The quality of vocational education and training will need to be improved so as to enhance the base of relevant knowledge and skills, recognizing that the period of basic educational preparation is constantly extended and the acquisition of job-specific skills postponed to later stages. This also applies to higher education, where a first degree, particularly in the social sciences and the humanities, is no longer an adequate passport to employment and has to be supplemented with further, more vocationally-oriented qualifications. Adult and higher education are themselves strategically placed to contribute to lifelong learning through the provision of teaching and research, initial and recurrent education and programmes oriented to wider employment and community needs.

30. Strategies for lifelong learning, finally, cannot be effective unless they represent a concerted effort - within the formal education system itself and linking it to all the other settings where education and training, and skill formation more generally, take place, particularly enterprises. The focus of these strategies will increasingly be the adult

workforce, whose skills need to be constantly renewed under the impact of technological change. Special attention will have to be given to the growing number of women who wish to return to work and to the retraining of displaced workers. More will need to be done to encourage the development of school/enterprise links and partnerships as well as to improve the volume of enterprise-based training, the quality of its tutors and the relevance of training courses and curricula.

31. There must be no illusions that moving in the directions outlined above will be an easy task. But this is an area where progress can be incremental, provided an overall framework exists which recognizes the educational continuum as it applies to the different learning styles of individuals. It must also be remembered that the experience so far has been that those who participate in further education are those who already have a sound educational background; hence the primordial importance of a solid initial education for all. It must also be stressed that, when it comes to adults, traditional school instruction, of which some at least will have unpleasant memories, is not the most appropriate incentive to attract them back to education. A pedagogy for adults still remains to be developed.

ii) Ensuring Educational Quality and Relevance

32. Concern about the quality of schooling dominated the educational debate in the eighties. It sprang from a widely felt view that the democratization of education, particularly in countries which adopted the "comprehensive school" model, had led to a fall in standards and that the interests of high achievers were sacrificed to those of the slow learners. It was fanned by conservative and economic thinking and was given political prominence by invidious comparisons between the high performance of Japanese students - and hence, it was argued, of the Japanese economy - and the poorer scholastic results of their counterparts in Western Europe and North America.

33. This concern will remain a central issue into the twenty-first century. Increasingly, however, it will be broadened in two directions. Firstly, it will extend to include, in addition to schooling, other education sectors and levels, particularly vocational education and adult education, as discussed in the previous section. Secondly, quality criteria will be defined more broadly than mere school achievement or learning outcomes. They will come to include consideration of the extent to which the education and training provided by schools and higher education institutions is relevant to the needs of young people in preparing them to manage their personal lives and to function effectively in modern technology-and-information-permeated societies, not only as workers but also as parents, consumers, citizens and in their other roles. Such an extension of the scope of quality criteria will make the search for objective standards of measuring quality even more chimeric than it has been so far.

34. In the search for quality, in its extended frame of reference and at all levels of education, attention will inevitably continue to focus on the three key and inter-related sectors that constitute the backbone of the educational process: the curriculum; the quality of teaching; and the effectiveness of pedagogy and methods of work.

(a) The Curriculum

35. The need for curriculum reform arises both from the increasingly rapid growth of knowledge and the broadening range of the responsibilities and clienteles of education. The central questions are how to ensure comprehensiveness and relevance while avoiding overloading the curriculum; how to make the curriculum responsive to new social concerns, such as the environment, health, etc., without vitiating its long-term purpose in the transmission of culture and values; how to provide for a diversity of offerings to meet the interests of diverse clienteles while ensuring coherence and focus; how, in particular, to

redefine the core curriculum in a situation in which technology is becoming part of the general culture, with all the implications that this has for the redefinition and acquisition of the basic competencies needed for the transition to adult life. Computer literacy, for example, has become part of the new basics in education.

36. These questions apply differently at different levels of education and, in order to avoid incoherence and overload, one general requirement would be that the special tasks and missions of each level should be better clarified. This would, in particular, help in deciding what to include in the foundation of initial education and what best should be postponed to subsequent levels. At all levels, the general objective should be to organize curricula so as to enhance the learning process, avoid inequalities of prestige between the different tasks and programmes, attenuate the traditional dichotomy between what is "general" and what is "vocational", and discourage biased choices such as those reflected in patterns of male and female participation in the sciences and the humanities.

37. As far as school curricula are concerned, the trend has been towards a more centrally-defined core - the national curriculum - setting the minimum learning objectives by which student and school performance is assessed. This goes hand-in-hand with a wider variety of options in other subject areas, particularly in upper secondary education, in the light of local needs and situations. These trends apply equally to countries with centrally organized and controlled systems of education as well as to those with decentralized systems.

38. Special problems arise in higher education as a result of the recent trend towards the increased, and some think excessive, vocational orientation of courses, at the expense of the social sciences, the arts and the humanities. The balance will eventually need to be redressed, seeing, in particular, that the rapid growth of a service-oriented economy means that the kind of personal attributes developed by these so-called "soft" disciplines - in terms of perceptive aptitudes and communication skills - will be even in greater demand than in the past. In addition, a permanent undermining of these disciplines would have serious consequences for the traditional role of higher education institutions, particularly universities, as centres for independent critique and cultural advancement in society.

(b) The Quality of Teaching

39. It is universally accepted that well-trained and motivated teachers are the most vital component of high quality education, whether in schools or in all the other settings where organized learning takes place. There is thus an imperative and continuing need to improve the quality and attractiveness of teaching as a profession. Improvements in rewards, career opportunities, initial and in-service preparation, status and prestige are generally accepted as essential to attracting high quality recruits and retaining talented practitioners in teaching posts and leadership positions. Measures in these directions are given added urgency in countries which foresee teacher shortages over the next few decades, shortages that are likely to be exacerbated by the ageing of staff and competition from other sectors, as already noted.

40. Experience, however, has shown that the gap between what is desirable and what can realistically be done to bridge it remains as wide as ever. Teaching is a massive profession. The resources required to improve the status of teachers to levels of other comparable professions - which in many countries has worsened rather than improved over the recent past - would be enormous and would call for a drain on the public budget which no country has so far shown the political commitment to risk. However, the profession's corporatist behaviour inhibits differentiated treatment among its members, as shown by the opposition to "merit-pay" schemes which some countries are encouraging. It must, therefore, be accepted that progress in improving teacher status can only be gradual and

incremental. But at the same time much can also be done to improve their conditions of work, in a situation in which they are constantly being called upon to perform a variety of tasks not directly linked to teaching. Recourse to para-professionals for such tasks would be helpful as would a more widespread use of information technology in support of their teaching duties. The overall objective must be to give teachers practical reassurance of the value which society attaches to their work, reflected in tangible measures of help and support in their daily tasks as well as in improvements to their status. It is only in this way that high levels of commitment and professional performance can be expected from teachers in return.

(c) Pedagogy and Methods of Work

41. The way in which children are taught and the ethos of their learning environment are as important to the educational process as is the content of teaching itself. The two cannot be separated but it is a fact that relatively little attention has been paid to the former. Pedagogies have followed cycles of fashion, from permissive child-centred approaches to more rigorously defined content and cognitively-directed ones, which now seem to be in favour. The learning sciences are still in their infancy as a discipline and levels of investment in R & D in education remain far lower than in any other sector of comparable size. Side by side with traditional academic research, much more needs to be done to improve the level of R & D, grounded in practice, involving staff and institutions in a constant process of diagnosis, comparison and analysis, and to support experimentation and innovation.

42. In its methods of work, the school has by and large remained isolated from the realities of the world around it, and this at a time when it is losing its monopoly as the agent for the transmission of information and the inculcation of attitudes to co-operative working and social living. Greater openness to the outside world is thus needed, including drawing on lessons that can be learned from the workplace in the approach both to teaching and to working methods more generally. In particular, more holistic approaches to the pedagogy of learning will need to be developed, in which experiential learning - learning by doing - is given its due place alongside cognitive processes of learning.

43. But perhaps the greatest need is for some fundamental rethinking of the traditional structures and organization of classroom teaching, so as to give both teachers and pupils more diversified and exciting learning situations. It is unthinkable that in the twenty-first century, with all the sophisticated means at our disposal, new pedagogical structures cannot be devised to release teaching from its centuries-old classroom organization - one teacher taking a 40-45 minute lesson in one subject with a class of 30-35 pupils of the same age. Such reorganization of teaching would make it possible for individual pupils to receive more personal attention and enable them to move educationally at a pace which is not determined primarily by the accident of their belonging to the same chronologically defined group. How this is to be done is a process which will primarily involve the teachers themselves, who would only be too anxious to liberate themselves from the loneliness they often feel in front of the traditional classroom, to get out of their working ghetto about which they so often complain. There are already signs within the teaching profession itself that they are willing to move in this direction.

44. It is particularly in this context that the new information technologies, with the self-learning opportunities they provide, could be particularly useful. But the potential of these technologies cannot be fully exploited without the availability of pedagogically sound software to match the rapid advances in hardware. So often in the past, educational software was in the hands of the same commercial interests which produced and sold the hardware, not necessarily relevant to the needs of pupils and teachers. It is reassuring to

note that many countries have now instituted coherent policies for the development and application of the new technologies, of which the production and selection of educational software is a major component. It is also a healthy sign that teachers themselves are involved in this process, in co-operation with university research centres and pedagogical institutes. Instruction in the pedagogical use of the new information technologies should henceforth be seen as an integral part of teacher training policies.

45. A final comment on the problems raised under the three sectors outlined above. It is clear that action in the directions indicated will have to be concerted across all three sectors, given their inter-relationship which has already been pointed out. Such concerted action will call for improved capacity in the management of school change, particularly in the context of growing decentralization of decision-making and increased school autonomy. This, in turn, will have implications for new leadership roles within schools, including new kinds of training for school leaders and a redefinition of their relationships to other staff, as well as to parents and the local community. It will also involve the working out of new links and responsibilities as between school leaders and regional or central education decision-makers, particularly in ensuring the availability of adequate support systems to facilitate school change.

46. These are all questions which are vital to endowing educational systems, whether centralized or highly decentralized, with the capacity to maintain their vitality and adapt to changing circumstances. Experience has shown that the centralization/decentralization issue is no longer the operative factor in developing such capacity. All systems are in fact becoming both more centralized and more decentralized at the same time. Centrifugal forces are generated by the two-fold need of ensuring national standards and the accompanying establishment of national evaluation systems, on the one hand, and of controlling public expenditure, on the other. At the same time, it is now recognized that change cannot be imposed from above through mere legislative acts or other prescriptive fiats; it must be grounded in grassroots initiatives rather than derive from top-down models - hence the move towards greater decentralization and devolution of decision-making to local and institutional levels. In addition to releasing local initiative and school creativity, such devolution has the advantage of enabling educational institutions to draw on extra resources, both financial and human, available in the communities around them, including business and industry. In this, of course, a careful balance has to be maintained so as to avoid the danger that schools and colleges, in their search for additional support, get highjacked by the local economy.

iii) The Quest for Equality

47. In the circumstances which prevailed in the eighties, the main driving force for educational change was the economic imperative, in tandem with improvements in quality. The objective of equal educational opportunities, which was the hallmark of the previous two decades, received less attention. It is clear, however, that in the decades ahead the quest for a more equal spreading of educational opportunities will reassert itself as a major component of policies. This arises from economic as well as from social and broader political considerations. The social and economic costs of those who are educationally left behind because of their socio-economic background and other circumstance are obvious. At a time of diminished youth cohorts and labour shortages, countries can ill afford to deprive themselves of their full human potential; hence the need to improve the educational situation of the disadvantaged as a means of combating their marginalisation and exclusion.

48. Education has always been specially concerned to remedy disadvantage, often through measures of "positive discrimination". Indeed, it has traditionally been seen, both by individuals and society at large, as the royal road to social mobility and the reduction

of social inequalities. This role is often exaggerated and education cannot do it alone, as the experience of the massive post-war expansion in education has shown: in spite of the "democratization" of education, glaring inequalities remain. It is true that gender inequalities, in terms of participation in education, have been eliminated, female participation now being equal to that of men. But women remain under-represented in the prestigious disciplines of science and technology and in research. They are also disadvantaged in their access to higher level posts in the labour market. Similar progress has been made in the reduction of regional and geographical disparities in education. But no similar advance has been made in improving the educational chances of the socially and economically disadvantaged in comparison to their more affluent contemporaries. The educational success curves between social groups have moved upwards, but the gap between them remains unaltered. Educational failure is still largely a function of social origin.

49. In times of economic hardship educational failure is translated more dramatically into unemployment, and often unemployability. The fight against school failure remains thus an agreed priority for all educational systems. It is suggested here that it will be very high on the educational priority agenda for the twenty-first century and the essential prerequisite for the success of all programmes directed at improving the condition of under-privileged groups in society.

50. There should be no illusion that there are quick or easy solutions. School failure has proved an intractable problem which has pestered all educational systems, whether large or small, selective or comprehensive. It affects up to 20 percent of an age group and it is one that cannot be solved without a new political commitment and the infusion of additional resources. In addition to ensuring access, which remains the essential prerequisite, new resources will be particularly necessary in order to install new pedagogies and means of educational differentiation to cater to the special needs of disadvantaged children in ways which do not merely reproduce or reinforce social differentiation, as has so often been the case in the past.

51. Recognition of the inadequacies of compulsory schooling in meeting the needs of those with learning difficulties or the less academically gifted is now widespread across all sectors of society, and governments have already accepted the policy objective of working towards achieving high-quality education and training for all as the panacea. The problem, of course, is how to give substance to this objective, so that it does not remain merely a pious hope or another of the slogans of which the history of education is replete. An initial prerequisite is to improve the motivations of all pupils without which their propensity to learning, at school and subsequently, cannot be developed. For many, this is at present hindered by the preponderance of academic learning which school curricula reflect and by systems of evaluation which are designed to show up failure, academically defined, rather than assess and encourage the success potential of individual pupils. The current emphasis on quality in education - quality being measured in terms of subject matter mastery - tends to aggravate the disadvantage of the less academically inclined pupils. This, in turn, gets reflected in teachers' attitudes who have little time for those who do not academically perform, and therefore do not contribute to the success image of the school, thus creating a vicious circle of low expectations reinforcing demotivation, under-achievement and failure.

52. Raising the status of vocational and technical education would also help motivate more young people to stay on in education beyond compulsory schooling, especially if it was accompanied by changes in the conditions permitting access to higher education by secondary school graduates from these streams. An example of this is provided by France, in its medium-term policy objective of extending secondary school graduation to 80 percent of the age-group through the institution of the "professional baccalaureate". A different

approach is to be found in the Germanic "Dual System", in keeping young people up to 18 in education (through part-time schooling) and in training (through the apprenticeship system). Other countries apply a mixture of the main features of these two systems. But in all cases, it is recognized that vocational education and training should not be developed in isolation of the rest of the system. This calls for a "whole school" approach, all the more necessary because of the increasing knowledge component and the generic skills nature of jobs, as a result of which general and vocational education are coming closer together.

53. Recognition of this convergence, and its translation into curriculum and instructional designs, will no doubt be of special help to the academically weaker groups among the school population. But it will not solve the educational problems of those at the bottom of the scale, the "educational under-class", for whom special measures will still be necessary. It is important that such measures should be conceived and implemented in the context of preventive rather than merely remedial policies - which implies that "at risk" populations have to be identified early; hence the need to enhance the role of pre-school education in conjunction with broader measures for early childhood. It is also important that such special measures be organized within an integrated system, the objective being to enable the target group concerned to be brought into the mainstream of provision. In many countries, this has in fact already been achieved for children with disabilities, who are no longer in "special" classes. This is an example which augurs well for the potential success of similar policies for the disadvantaged, provided the political will exists and the corresponding resources are forthcoming.

54. The fight against school failure has to go hand-in-hand with a broader set of measures targeting the provision of education and training to different under-served groups of students and trainees. Those with disabilities should have full access to learning opportunities that stretch their talents and broaden social participation. Learning environments that promote both pluralism and equality of opportunity will need to be developed for cultural and ethnic minority groups. Under-served adults deserve special attention, particularly those threatened by unemployment and the already jobless. A universal problem, as already mentioned, is that those with low initial education attainment levels tend to show little interest in returning to organized learning - participation by adults continues to be dominated by the already educated. Measures should be taken to encourage all adults actively to learn throughout their lives. In all this, concerted action will be needed involving education, social and labour market policies, most promisingly undertaken as integrated strategies at local levels.

55. Nothing in what has been said above in the search for greater equality of educational opportunity will alter the fundamental function of educational systems as sorting out mechanisms through their selection and certification processes; nor will it stop them from being used by employers for screening purposes. Meritocracy is an essential feature of modern, highly organized societies, and the educational system remains both the main social institution for the preparation of those who will occupy leadership positions and the fairest channel for their selection, as against former systems based on birth or wealth. It will, therefore, always be confronted with the excellence/equity dilemma, which cannot be satisfactorily resolved so long as broader social inequalities exist. What it can do is to attenuate the effects of these inequalities by ensuring that, in what lies within its own remit, each individual is given a fair chance to prove and develop his/her own merits. It is in this sense that the measures suggested above find their real meaning; and whatever global statistics may show, there is ample personal experience across all societies which proves that education does make a difference at the level of the individual.

iv) New International Perspectives and Dimensions

56. Education policies are par excellence national policies. The notion of an "international education policy", in the sense that one has in economics and trade, and even in science, does not yet exist. Yet, fast-moving events across the globe are changing the international scene to an extent that the implications for national education policies can no longer be ignored.

57. Increasing interdependence which, as already explained, has become a feature of the modern world, raises diverse problems for education and training policies. The rapidly developing international skills market places a special premium on the acquisition of foreign languages. Mobility of students and personnel across countries raises questions of cross-national comparability and transferability of qualifications, as well as broader issues of recruitment and access policies in higher education. In particular, the influx of students from developing into developed countries raises similar questions, at both policy and institutional levels. Knowledge of other countries' cultures becomes essential to economic competitiveness. It is also the best guarantee for greater international understanding and a necessary component of national policies to deal with the complex problems of increasingly multi-cultural societies. In yet another sense, growing internationalisation and the impact of the media across national boundaries raise concerns about how national cultural identities, especially in the case of smaller countries, can be preserved.

58. These are problems with which education policies have only just begun to grapple. The twenty-first century will see them coming to the forefront of the educational agenda.

v) Meeting the Costs

59. The problems described above amount to a formidable agenda for education policies in the twenty-first century. They put into even sharper focus the perennial question of resource requirements and how these are to be found. Meeting the costs of learning-thirsty societies will, in fact, be the question for the future. Given continuing constraints on public budgets, and sluggish economic growth, there are no easy solutions.

60. There will obviously be need, and possibilities, for redeployment within the educational sector itself, depending on national priorities and the pressure of numbers, as well as strong pressures for improved management of existing resources. Experience has shown that the net financial gains from these two sources are only marginal. Redeployment possibilities remain limited, given the entrenched sectorial interests and rigid management structures of education systems. The cost-effectiveness of education programmes can be improved through better management and the use of alternative, less labour-intensive systems of instruction, including the use of technology. But this has as yet to be empirically demonstrated. And, in any case, heavy initial financial outlays would be required in order to attain a critical mass than can eventually be translated into net savings. There is no escaping the reality that additional resources will be required. Where will they come from?

61. One possible source would be re-allocation within the public budget, such as benefitting from the "peace dividend". There are signs already in a number of countries that the political priority given to education is reflected in increased financial allocations, so much so that educational budgets in these countries are again on top of the list of public spending. Yet, this does not seem enough to catch up with growing demand and the backlog in teaching staff and facilities. New sources of finance will need to be tapped, and

these can only come from the private sector*, the local community or individuals, thus leading to the development of systems of mixed financing. This applies in particular to the higher levels of education, which have been those most heavily hit by budgetary cuts, though increasingly in some countries it tends to extend downwards to the provision of basic education.

62. Such systems of mixed financing have to be both economically efficient and socially acceptable. Reaching public consensus on this issue will be at the heart of future policy-making in education, at a time, as indicated earlier, when the meaning of "policy" is changing in a world of variegated educational provision and diverse authority. More than ever, the availability of sound educational data and information, and capacity for monitoring the system and evaluating its performance, become preconditions for effective investment planning and policy making. But there must be no illusion that the development of acceptable instruments of evaluation and accountability is an easy matter. The quality of teaching is notoriously difficult to assess and educational productivity, measured quantitatively, often distorts performance. Education is not an input/output industry, but one in which the quality of the process itself is perhaps the best criterion of its success.

E. Concluding Remarks: Towards a New Humanism

63. Education is a long-term process, with an irreducible plurality of purposes. It binds together the past with the future of our societies. What we do about it to-day matters fundamentally for the kind of society that we wish to see develop, its values and the material and cultural well-being of its citizens. Learning for the twenty-first century must carry a vision of what that society will be and of the qualities that men and women should have to help shape it. In this, education must increasingly play a pro-active rather than a merely reactive role, and this has been an underlying assumption throughout the argument and analysis in this paper.

64. The need for such a role is particularly essential to safeguard against the unintended consequences of technology-based, competition-driven and media-dominated societies which, if left unfettered, might result in the "dehumanisation" of values and culture. This is not a question of rejecting scientific and technical progress. It is rather one of ensuring that such progress is healthily woven into the social and cultural fabric and fundamental human values. At a time when family and community structures are breaking up, education remains the main instrument that can knit together this fabric into a new humanism; a humanism which recognizes the indivisibility of culture, across the arts and the sciences, the emotional and the rational, the perceptive and the analytical, as well as across countries. Developing the concept of such a new humanism and sustaining its practical application is a major challenge for education in the twenty-first century.

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*It must not be forgotten that there already exist sizeable investments by firms in human resources. One U.S. estimate from the early 80s puts corporate spending on employee training at between $30 and $50 billion annually, rivalling outlays on higher education and representing an approximately two-fold increase in current prices from the early sixties. (OECD: High Quality Education and Training for All, 1992, p. 62, on which the present paper has drawn).